Office of the Mayor San Francisco



LONDON N. BREED Mayor

September 16, 2019

The Honorable Garrett L. Wong Presiding Judge, Superior Court of California, County of San Francisco 400 McAllister Street, Room 008 San Francisco, CA 94102-4512

Dear Judge Wong,

In accordance with Penal Code 933 and 933.05, the following is in response to the 2018-2019 Civil Grand Jury Report, Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System. We would like to thank the members of the 2018-2019 Civil Grand Jury for their interest in disaster preparedness and in improving the resiliency of our critical public safety infrastructure to provide robust emergency firefighting to all communities in San Francisco.

San Francisco continues to improve our City's resiliency each day through our ongoing investments in public infrastructure and equipment. Our Capital Planning Program coordinates much of these investments by conducting strategic long-term planning across major programs and projects, including the Emergency Firefighting Water System and Earthquake Safety and Emergency Response (ESER). The ESER bonds approved by voters in 2010 and 2014 have funded improvements to cisterns, pipelines, and critical public facilities that improve the City's ability to respond in emergencies and to fight fires. In addition, through the City's annual budgeting process, we will continue weighing resources to improve public safety and the operational readiness and emergency response capabilities of our departments. For example, our most recently adopted FY 2019-20 budget includes funding for five new hose tenders to replace and enhance the Fire Department's aging equipment.

In March 2020, the voters of San Francisco will once again vote on a new \$628.5 million ESER bond measure. Included in the proposal is an investment of an additional \$153.5 million for the Emergency Firefighting Water System.

We appreciate the opportunity to comment on the Civil Grand Jury report findings and recommendations. Moving forward, and as appropriate, the City plans to analyze many of the recommendations as part of our next 10-Year Capital Plan.

A detailed response from the Mayor's Office, City Administrator's Office, Fire Department, Public Utilities Commission, and the Department of the Environment is attached.

Each signatory prepared its own responses and is able to respond to questions related to its respective part of the report.

London N. Breed Mayor

Harlan L. Kelly Jr. General Manager, Public Utilities Commission

Jeanine Nicholson Chief, Fire Department

Naomi Kelly City Administrator

Deborah Raphael Director, Department of the Environment

Recommendation Response Text	Will be implemented Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fine; in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan. He Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1 of each odd-numbered year for approval no later than May 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges. Updates available on this timeline would be included. The City cannot discuss the project and timeline until the ESER 2020 plan passes. For this reason with ext. SER 2020 plan passes. For this reason with the Capital Plan, and push back the timeline to December 31, 2021.	The commitment of sources for specific uses on specific threlines for San Francisco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and passed on analysis, will be done on the capital plan timeline. The capital planning process gathers, documents, and balances planned funding for needs across the public infrastructure portfolio and across San Francisco Scresilience challenges. The Capital Plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tiered; (1) and easily and enhance resilience; (3) preserve assets and promote usual maters; (2) ensure public safety and enhance resilience; (3) preserve assets and promote usual material control of the profit or the next 10-Year Capital Plan and those that follow, the City will continue to analyze priority projests and programs and identify sources to advance those priorities. Committing to entirely funding a single program out of context and without regard for the trade-oifs of that commitment would be out of step with the City's inflinge process and likely regarded capital planning process and likely creates significant vulnerabilities elsewhere in the portfolio.
Recommendation Response (Implementation)	Will be implemented	analysis
Respondent Assigned by CGJ [Response Due Date]	(September 15, 2019)	[September 15, 2019]
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	By no later than December 31, 2020, the Mayor, the SPUC, the SPUC, and the Office of Resilience and Capital Planning should jointly present to the Board of Supervisors a detailed plan to the Board of Supervisors a detailed plan to the Board of Supervisors and the Office of Supervisors and Supe	The plan discussed in Recommendation R1 should include a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, selsmically safe emergency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.
R# [for F#]	(for F1-F6) [[for F1-F6]
Finding Response Text	The SPPUC, SFFD, and San Francisco Public Move's (SFW) are committed to increasing fire protection throughout San Francisco, Since the passage of the first Earthquake Safety and Emergency Response Bond in 2001, the three agencies whave been implementing projects to improve the AWSS system's seismic reliability and range of coverage. Enhancing the AWSS range of coverage to all areas of the City would require the allocation of funds to do so. The three agencies will continue to develop and implement projects utilizing new and proven system design. There have been many advancements in earthquake resistant pipeline design and materials, hydrants, and seismic valves since the earth 91900s, and the City invalves since the earth operation of the project of the SFFD.	The SFPUC, SFFD, and San Francisco Public Movels (SFPQ), and San Francisco, Since the protection throughout San Francisco, Since the passage of the first Earthquake Safety and Emergency Response Bond in 2001, the three agencies have been implementing pojects to improve the AWSS system's seismic reliability and range of coverage. Enhancing the AWSS range of Coverage to all areas of the Inywould require the allocation of funds to do so. The tree agencies will Continue to develop and implement projects utilizing new and proven technologies that improve upon the original system design. There have been many advancements in earthquake resistant pipeline design and materials, hydrants, and seismic whose since the earth 2000, and the City intends to use the bearth 2000, and the City intends to use the bearth 2006, and the City intends to use the performance standards of the SFFD.
Finding Response (Agree/Disagree)	Agree with the finding	Agree with the finding
Respondent Assigned by CGJ [Response Due Date]	Mayor [September 15, 2019]	(September 15, 2019)
Finding (text may be duplicated due to spanning and multiple respondent effects)	The City's high-pressure emergency water burghy system, known as the Auxiliary Water Supply system (Auxiliary Water Supply System (AuxSS), does not cover large parts of Supervisorial Districts 1, 4, 7 and 11, roughly one-third of the City's developed area. As a result, these districts are not adequately protected from fires after a major earthquake.	The City's high-pressure emergency water supply system, known as it he Audilary Water Supply System (kWSS), does not cover large parts of Supervisorial Districts 1, 4, 7 and 11, roughly on-ehild of the City's developed area. As a result, these districts are not adequately protected from fires after a major earthquake.
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Report Title [Publication Date]	Act Now Before It Is October Aggressively Expand and Enhance Our Emergency Firefighting Water System (July 17, 2019)	Act Now Before It is Aggressively Expand and Enhance Our Emergency Friefighting Water System (July 17, 2019)

Recommendation Response Text	infrastructure and reacures to be well prepared infrastructure and reacures to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan. Per Administrative Code 3.20, Hata Plan must be submitted to the Mayor and Board no later than March 1 of each odd-numbered vear for approval no later than May I. The requested presentation would be delivered as part of that Plan's submission to enable holistic planing across san Francisco's resilience challenges. Updates available on this timeline would be included. The City cannot discuss the project and fineline until the ESER 2020 plan passes. For this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 31, 2021.	The commitment of sources for specific uses on specific timelines for San Francisco's public instructure is the work of the 10-Vear Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and blan descussed in Recommendation 1 will be acknowledged in the Capital Plan, and blan timeline. The capital planning process gathers, documents, and balances planned funding for needs across the public infrastructure portfolio and across San Francisco's resilience challenges. The Capital Plan has inorgatanding funding principles to guide the prioritiation of public infrastructure investments. These investments are tiered; (1) address legal and/or regulatory mandates; (2) address legal and/or regulatory mandates; (2) perserve assets and promote sustainability; (4) perserve assets and promote sustainability; (4) perserve assets and promote sustainability; (4) personne e accommic development, in the next 10-Year Capital Plan and those that follow, the City will continue to analyze priority projects and promote accommitting to entirely funding a single program and identify sources to advance those priorities. Committing to entirely funding a single program out of context and without would be out of step with the City's longstanding and highly regarded capital planning process and likely create significant vulnerabilities elsewhere in the portfolio.
Recommendation Response (Implementation)	Will be implemented	analysis
Respondent Assigned by CGJ [Response Due Date]	Mayor [September 15, 2019]	[September 15, 2019]
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	By no later than December 31, 2020, the Mayor, the SFDUC, the SFD, and the Office of Restlience and Capital Planning should jointly present to the Board of Supervisors a detailed plan to the Board of Supervisors a detailed plan to all parts of San Francisco in the event of a 1906-magnitude (7.8) earthquake.	R2 The plan discussed in Recommendation R1 [for F1-F6] should include a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, seismically safe emergency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.
R# [for F#]	[for E1-F6] [6	(for F1-F6)
Finding Response Text	As the City considers what is essential to protect San Frandsco, it is important to acknowledge [Son Frandsco, it is important to acknowledge [Son Frandsco, it is important to acknowledge [Son Frandsco, it is important to acknowledge.] These challenges, are documented in the Resilient SF strategy (2016) and underliel the strategic efforts of our capital investments as represented in the 10-Year Capital Plan (Jass property and protect 2019). These challenges are: Earthquakes, Sea Level Rise/Climate Change, Aging infrastructure, Unaffordability, and Social meaningful threats to San Franciscans, their property, and their ability to make a life in the effection about priority investments, San Francisco must keep an eye on all of these challenges, identify the areas of greats tneed scustos them, and make progress on all fronts simultaneously. The Cli has taken significant steps since 2010 to ensure that the first Earthquake Safety and Emergency Response Bond in 2010, SPPUS, SFPUS, SF bublic Works have been implementing projects to improve the system's selexin creliability and range of coverage. The three agencies will continue to implement projects utilizing new and proven technologies that improve upon the original system design.	As the City considers what is essential to protect San Fancisco, it is important to acknowledge our multiple, complex resilience challenges. These challenges are documented in the Resilient SF strategy (2016) and underlie the Resilient SF strategy (2016) and underlie the strategy fedror of our capital investments as represented in the 10-Year Capital Plan (1sst updated 2019). These challenges are: Earthquakes, Sea Leve Rise/Ciffinate Chalge, Aging Infrastructure, Unaffordability, and Social Innequity. All of these challenges represent meaningful threats to San Franciscans, their property, and their ability to make a life in the city. In making decisions about princity property, and their ability to make a life in the city. In making decisions about princity. In making decisions about princity on all fronts simultaneously. The City has taken significant steps since 2010 to ensure that the City has a high-pressure multi-sourced, seisimically safe EFWS. Since the passage of the first Earthquake Safety and Emergency Response Bond in 2010, SFPUC, SFPD, SF Public Works the system's estainic reliability and range of coverage. The three agencies will continue to implement projects tuilizing new and proven system design.
Finding Response (Agree/Disagree)	Agree with the finding	Agree with the finding
Respondent Assigned by CGJ (Response Due Date)	Mayor [September 15, 2019]	Mayor (September 15, 2019)
Finding (text may be duplicated due to spanning and multiple respondent effects)	A high-pressure, multi-sourced, seismically sale emergency firefighting water supply will be costly but is essential to protect the City.	A high-pressure, multi-sourced, selemically safe emergency frelighting water supply will be costly but is essential to protect the City.
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Report Title [Publication Date]	Act Now Before It is Aggressivelete Aggressivelete and Enhance Our Emergence Firefighting Water System [July 17, 2019]	Act Now Before it is Too Late: Aggressively Expand and Enhance Our High-Pressure Freefighing Water System [July 17, 2019]

Recommendation Response Text	Will be implemented The analysis will be performed as part of the City's 20-Year Captural Plan development process. The next full update to the Capital Plan will be submitted to the Mayor and Board not later than March 1, 2021, for approval no later than May 1, 2021.	Will be implemented Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight freis in all parts of San Francisco is something that will be a focus of the next 10. Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1. The requested bresentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges, Luptaes available on this timeline would be included. The City cannot discuss the project and timeline until the ESER 2020 plan passes. For this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 31, 2021.
Recommendation Response (Implementation)	Will be implemented	Will be implemented
Respondent Assigned by CGJ [Response Due Date]	Mayor (September 15, 2019)	Mayor [September 15, 2019]
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	By no later than June 30, 2022, the Mayor and the Board of Supervisors should analyze whether to propose a separate bond for the development of a high-pressure, multi-sourced, seismically staff emergency water system for those parts of the City that don't currently have one, with a target date of completing construction by no later than June 30, 2034.	by no later than December 31, 2020, the Mayor, Mayor the SFPUC, the SFPD, and the Office of Resillence (September 15, 2019) and Capital Panning should jointly present to the Board of Supervisors a detailed plan to ensure the City is well prepared to fight fires in all parts of San Francisco in the event of a 1906-magnitude (7.8) earthquake.
R# [for F#]	Re F11	R1 [for F1-F6]
Finding Response Text	As the City considers what is essential to protect our multiple, complex resilience challenges. These challenges are documented in the strategie of its important to acknowledge it is remarked to the strategie of our capital investments as represented in the 10-Year Capital plan (last applated 2019). These challenges are: Earthquakes, Sea Leve Risky Climate Change, Aging Infrastructure, Unaffordability, and Social Inneaningful threats to San Fandscans, their property, and their ability to make a life in the decidenty, and their ability to make a life in the property, and their ability to make a life in the large of the manningful threats to San Fandscans, their property, and their ability to make a life in the extra property, and their ability to make a life in the large property, and their ability to make a life in the capeast the decreases and make progress on all for these challenges, identify the areas of significant steps since 2010 to ensure that the significant steps since 2010 to ensure that the first Earthquake Safety and Emergency Response for more implementing projects to improve the system's seismic reliability and range of coverage. The three agencies will continue to implement projects utilizing new and proven technologies that improve upon the original	Decisions about programming and funding levels of future ESRB bonds and other complementary sources that could support the expansion of the AWSS have yet to be made.
Finding Response (Agree/Disagree)	finding finding	Disagree, wholly
Respondent Assigned by CGJ [Response Due Date]	(September 15, 2019)	[September 15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	A high-pressure, multi-sourced, seismically safe emergency fireflighting water supply will be costly but is essential to protect the City.	Unless the City increases funding levels, it will be Mayor several decades (i.e., after the USGS predicts one or more major earthquakes will occur) before the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency firefighting water supply.
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Report Title [Publication Date]	Act Now Before It is Agorssiates: Agorssiates and Enhance Our Agilla-Pressure Emergency Firefighting Water System [July 17, 2019]	Act Now Before it is Aggressively Expand Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]

Recommendation Response Text	The commitment of sources for specific uses on specific tunienes for San Fencisor's public infrastructure is the work of the 10-Yoar Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan imeline. The capital planning process gathers, documents, and balances planned funding for needs across the public infrastructure portfolio and across San Francisco's resilience challenges. The Capital Plan has longstanding funding principles to guide the prioritization of public infrastructure infrastructure protrolitization of public infrastructure prioritization of public infrastructure and plan has longstanding funding principles (1) ensure public safety and enhance resilience; (2) ensure public safety and enhance resilience; (3) preserve assets and promote sustainability; (4) address legal and/or regulatory mandates; (2) preserve assets and promote sustainability; (4) preserve assets and promote sustainability; (4) preserve assets and promote sustainability; (4) preserve assets and dennity sources to advance those priority projects and programs and identity sources to advance those priorities. Committing to entirely funding a single program out of context and without regard for the trade-offs of that commitment would be out of step with the City's longstanding and highly regarded capital planning process and likely create significant vulnerabilities elsewhere in the portrolio.	The Fire Department has been allocated funding to purchase five units through funds from the PY19-20 City budget and an allocation from the State. The Department is currently working with the Office of Contract Administration to develop a multi-year term contract for hose tenders so in the case that additional funding is secured in future years, the Department will be able to reduce the amount of time for procurement of the apparatus. Each hose tender cost \$1 million each, and we need to weigh purchase of additional hose tenders to other budget request and priority.	of The analysis will be performed as part of the City's 10-Year Capital Plan development process. The next full update to the Capital Plan will be submitted to the Mayor and Board not later than March 1, 2021, for approval no later than May 1, 2021.
Recommendation Response (Implementation)	Requires further analysis	Requires further analysis	Will be implemented
Respondent Assigned by CGJ [Response Due Date]	Mayor [September 15, 2019]	Mayor [September 15, 2019]	Mayor (September 15, 2019)
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	The plan discussed in Recommendation R1 Should including financing sources, for the installation, within 15 years of a high-pressure, multi-sourced, seismically side emergenory water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	As interim measure, by no later than June 30, Mayor 2021, the City should purchase the 20 new PWSS [September 15, 2019] bose tenders being requested by the SFPD, to replace and expand its currently inadequate inventory.	By no later than June 30, 2022, the Mayor and Mayor the Board of Supervisors should analyze whether [September 15, 2019] to propose a separate bord for the development of a high-pressure, multi-sourced, seismically safe emergency water system for those parts of the City that don't currently have one, with a target date of completing construction by no later than June 30, 2034.
R# [for F#]	[for F1-F6]	R4 [for F6-F7]	R8 [for F5, F6, F11]
Finding Response Text	Decisions about programming and funding levels of future ESSR bands and other complementary is of ources that could support the expansion of the AWGS have yet to be made.	Decisions about programming and funding levels of future ESER bonds and other complementary I sources that could support the expansion of the AWSS have yet to be made.	Decisions about programming and funding levels of future ESR bonds and other complementary is sources that could support the expansion of the AWSS have yet to be made.
Finding Response (Agree/Disagree)	Disagree, wholly	Disagree, wholly	Disagree, wholly
Respondent Assigned by CGJ [Response Due Date]	Mayor [September 15, 2019]	Mayor [September 15, 2019]	September 15, 2019
Finding (text may be duplicated due to spanning and multiple respondent effects)	Unless the City increases funding levels, it will be Mayor several decades (i.e., after the USGS predicts one or more major earthquakes will occur). Defore the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency firefighting water supply.	Unless the City Increases funding levels, it will be Mayor several decades (i.e., after the USGS predicts one or more major earthquakes will occur) before the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency firelighting water supply.	Unless the City increases funding levels, it will be Mayor several decades (i.e., after the USGS predicts one or more major earthquakes will occup to complete the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency fireflighting water supply.
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Report Title [Publication Date]	Act Now Before it is Agorssivele: Agorssivele: And Enhance Our High-Pressure Emergency Frefighting Water System [July 17, 2019]	Act Now Before it is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	Act Now Before it is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]

Recommendation Response Text	Will be implemented The analysis will be performed as part of the City's 2.0 Vear Capital Plan development process. The next full update to the Capital Plan will be submitted to the Mayor and Board not later than March 1, 2021, for approval no later than May 1, 2021.
Recommendation Response (Implementation)	Will be implemented TO
Respondent Assigned by CGJ [Response Due Date]	(September 15, 2019)
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	R By no later than June 30, 2022, the Mayor and Mayor for the Baard of Supervisors should analyze whether [September 15, 2019] to propose a separate bond for the development of a high-pressure, multi-sourced, seismically safe emegrapenty water system for those parts of the City that don't currently have one, with a target date of completing construction by no later than June 30, 2034.
R# [for F#]	R8 [[fores, 66, to
Finding Response Text	The EFWS was built after the 1906 earthquake, and its location, primarily in the northeast portion of San Fancisco, corresponds to the location of the majority of the city's population at that time. Since 2010, the 5FPU _C 5FP _D and Public Works have made critical improvements the existing EWS system. Expanding the EFWS prior to ensuring that the existing EFWS is resilient and reliable would have contradicted best engineering practices. The SFPU _C and SFPD are developing plans that would implement a resilient, robust, and redundant potable EFWS for the Westsled of San Francisco. The potable EFWS that is being developed and analyzed would propose the best method for bringing a robust and resilient high-pressure finelighting water system to the Western neighborhoods in San Francisco that is capable of providing water needed for finelighters at the high-pressure needed for finelighters to combat large fires after a seismic event, and is likely to include over 14 miles of new EFWS pipelines and potentially two new pumps stations likely to include supplied by four water sources. The SFPUC and SFPO's potable EFWS is being designed in a manner that allows the appling network to be extended in the future to serve additional areas.
Finding Response (Agree/Disagree)	Disagree, partially
Respondent Assigned by CGJ [Response Due Date]	Mayor [September 15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	The City does not have a timeline to fund and completed development of a high-pressure, multi- [September 15, 2019] sourced, seismicality sale emergency water supply for all parts of the City, including poor neighborhoods that his torically haven to been as the downtown business district and many richer neighborhoods.
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Report Title [Publication Date]	Act Now Before It Is Togotasively Expand And Enhance Our High Pressure Emergency Firefighting Water System [July 17, 2019]

Recommendation Response Text	Ensuring that San Francisco has the francisco has the francisco has the francisco for fight fires in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan. For Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1 of each odd. 1. The requested presentation would be delivered as part of approval no later than May 1. The requested part of approval no later than May endieved as part of that Plan's submission to enable holistic planning across San Francisco's registeric cabilleriese. Updates available on this timeline would be included. The City cannot discuss the project and timeline until the ESER OZOD plan passes. For this reason, the City will sync his recommendation with the Capital Plan, and push back the timeline to December 31,	The commitment of sources for specific uses on infrastructure is the work of the 10-year Capital Plan. The plan discussed in Recommendation 1 will be achrowledged in the Capital Plan, and based on analysis, will be done on the capital planing process grater, documents, and balances planned timeline. The capital planing process grather, documents, and balances planned tunding for needs across the public infrastructure portiol is and across San Francisco's resilience challenges. The Capital Plan has longstanding funding principles to guide the prioritization of public infrastructure plan has longstanding funding principles (1) guide the prioritization of public infrastructure guide the prioritization of public infrastructure and promote sustainability, (4) advance planned and promote sustainability; (4) advance planned and promote sustainability (5) advance planned and programmatic needs, and (5) promote economic development. In the next City will continue to analyze priority projects and proorities. Committing to entirely funding a propriorities. Committing to entirely funding a single program out of context and without regard for the trade-offs of that commitment would be out of step with the City's longstanding and highly regarded capital planning process and likely regarded capital planning process and	Final times and Francisco has the infrastructure and resources to be well prepared for the first free in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan. Per Administrative Code 3.20, what Plan must be submitted to the Mayor and Board no later than March. 10 feach odd-numbered year for approval no later than May Interequested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's free excellence challenges. Updates available on this infineline would be included. The City cannot discuss the project and timeline until the ESER Soor plan passes, crip this resoon, the City will sync this recommendation with the Cotty will sync this recommendation with the City will and push back the timeline to December 31, 2021.
Recommendatio		The commitment of sources for specific uses on specific tumble sof San Fanckso's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation Julian will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan individual process gathers, decuents, and balances planned funding for needs across the public infrastructure portfolio and across San Francisco's resilience challenges. The Capital Plan has longstanding funding principles. The Capital Plan has longstanding funding principles infrastructure investments. These investments are tired: (1) and address legal and/or regulatory mandates; (2) guide the prioritization of public infrastructure investments. These investments are tired: (1) preserve assets and formore sustainability; (4) preserve assets and promote sustainability; (4) preserve assets and promote sustainability; (4) preserve assets and promote sustainability; (4) preserve planned and programmatic needs; and divince shanned those that follow, the City will continue to analyze priority projects an programs and identify sources to advance those priorities. Committing to entirely funding a principle. Committing to centerly funding a programs and identify sources to advance those the regard for the trade-offs of that commitment would be out of step with the City's independent on the particilier. Committing process and likely reate significant vulnerabilities elsewhere in the portfolio.	
Recommendation Response (Implementation)	Will be implemented	analysis	Will be implemented
Respondent Assigned by CGJ [Response Due Date]	General Manager, San Frantscoop bublic Utilities Commission (September 15, 2019)	General Manager, San Francisco Public Utilities Commission (September 15, 2019)	General Manager, San Francisco Public Utilities Commission [September 15, 2019]
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	By no later than December 31, 2020, the Mayor, the SPUC, the SFPC, and the Office of Resilience and Capital Planning should jointly present to the Board of Supervisors a detailed plan to ensure the City is well prepared to fight fires in all parts of San Francisco in the event of a 1906-magnitude (7.8) earthquake.	The plan discussed in Recommendation R1 financing sources, for the installation with 15 financing sources, for the installation with 15 years of a high-pressure, multi-sourced, seismically safe emergency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	By no later than December 31, 2020, the Mayor, the SFPUC, the SFFD, and the Office of Resilience and Capital Panning should infulty present to the Board of Supervisors a detailed plan to ensure the City is well prepared to fight fires in all parts of San Francisco in the event of a 1906-magnitude (7.8) earthquake.
R# [for F#]	R1 [for F1-F6]	R2 [for F1-F6]	R1 [for E1-F6]
Finding Response Text			The MWASS has been significantly upgraded in the last 15 years through the Water Supply provement Program (WSIP) initiated by the SPDU. The goals of WSIP included to reduce vulnerability of the water system to damage from earthquakes and increase overall water system reliability. There were 35 in-city projects within the \$4.8 billion-dollar program. The WSIP was the largest capital program ever undertaken by San Fancisco, and one of the largest water infrastructure programs in the nation. By San Fancisco, and one of the largest water infrastructure programs is targeted and strategic infrastructure programs stargeted specifically at improving a water system? Seefin reliability and resilience, Additionally, it is unique because the WSIP utilized a 2.8 magnitude earthquake as its seismic Level of Service.
Finding Response (Agree/Disagree)	Agree with the finding	finding finding	Disagree, partially
Respondent Assigned by CGJ [Response Due Date]	General Manager, San Frankce Dullic Utilities Commission (September 15, 2019)	General Manager, San Franksko Public Utilities Commission (September 15, 2019)	General Manager, San Francisco Public Utilities r Commission [September 15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	Fires resulting from an earthquake represent a significant risk of widespread damage and potential loss of life in San Francisco.	Fires resulting from an earthquake represent a significant risk of widespread damage and potential loss of life in San Francisco.	The municipal water supply system (MWSS) is highly vulnerable to damage from a major earthquake and is not a reliable source for water supply for firelighting after a major earthquake.
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Report Title [Publication Date]	Act Now Before It is Too Late: Too Late: Too Late: And Enhance Our and Enhance Our Energency Firefighting Water System [July 17, 2019]	Act Now Before It is Aggressively Expand and Enhance Our and Enhance Our Emergency Firefighting Water System (July 17, 2019)	Act Now Before it is Too Late: Aggressively Expand and Enhance Our High-Pressure Ferregency Frielighting Water System [Unly 17, 2019]

Recommendation Response Text	The commitment of sources for specific uses on specific timelines for San Frankcos or public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan and based on analysis, will be done on the capital plan timeline. The capital planning process gathers, documents, and balances planned funding for needs across the public infrastructure portfolio and across San Frankcos's resilience challenges. The Capital Plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tereed; (1.) address legal and/or regulatory mandates; (2) ensure public safety and enhance resilience; (3) preserve assets and promote sustainability; (4) advance planned and programmatic needs; and (5) promote economic development. In the next 10-Year Capital Plan and those that follow, the Citty will continue to analyze priority projects and programs and identify sources to advance those pringle be out of stop with the City is imple program out of context and without regard for the trade-offs of that commitment would be out of stop with the City is imple program out of context and without regard for the trade-offs of that commitment would be out of stop with the City is	Will be implemented Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan, For Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1 of each odd. In The requested for approval no later than May 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges. Updates submission to discuss the project and timeline until the ESER 2020 plan passes, or this reason, the City valuncy sync this recommendation with the Capital Plan, and push back the timeline to December 31, 2021.
Recommendation Response (Implementation)	analysis	Will be implemented
Respondent Assigned by CGJ [Response Due Date]	General Manager, San Frankceo buller Utilities Commission [September 15, 2019]	General Manager, San Francisco Public Utilities Commission [September 15, 2019]
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	The plan discussed in Recommendation R1 and discussed in Recommendation R1 and financing sources, for the installation within 15 years of a high-pressure, multi-sourced, seekineally side emergency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	R1 By no later than December 31, 2020, the Mayor, General Manager, San and Capital Planning should jointly present to Commission the Board of Supervisors a detailed plan to lespeneber 15, 2019 ensure the City is well prepared to fight fires in all parts of San Francisco in the event of a 1906-magnitude (7.3) earthquake.
R# [for F#]	R2 [for F1-F6]	R1 [for F1-F6]
Finding Response Text	The MWSS has been significantly upgraded in the last 15 years through the water Supply (improvement Program (WSIP) initiated by the SPPUC. The goals of WSIP included to reduce Valuerability of the water system to damage from earthquakes and increase overall water system reliability. There were 35 in-city projects within the 54.8 billion-dollar program. The WSIP was the largest capital program ever undertaken infrastructure programs in the nation. Additionally, it is one of the only comprehensive and strategic infrastructure programs targeted specifically at improving a water system? sessimic reliability and resiliency. Additionally, it is unique because the WSIP utilized a 7.8 magnitude earthquake as its seismic Level of Service.	The SFPUC, SFPD, and San Francisco Public Works (SFPW) are committed to increasing fire protection throughout San Francisco. Since the passage of the first Earthquake Safety and Emergency Response Bond in 2010, the three agencies have been implementing projects to improve the AWSS system's seismic reliability and range of coverage. Enhancing the AWSS range of coverage to all areas of the City would require the allocation of funds to do so. The three agencies will continue to develop and implement projects utiliting new and proven technologies that improve upon the original system design. There have been many advancements in earthquake resistant pipeline design and materials, hydrants, and seismic walves since the early 1300s, and the City intends to use the best possible technology available to meet the performance standards of the SFPD.
Finding Response (Agree/Disagree)	Disagree, partially	Agree with the finding
Respondent Assigned by CGJ [Response Due Date]	General Manager, San Francisco Public Utilities Commission (September 15, 2019)	General Manager, San Francisco Public Utilities Commission [September 15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	The municipal water supply system (NWSS) is highly vulnerable to damage from a major aarthquake and is not a reliable source for water supply for firefighting after a major earthquake.	The City's high-pressure emergency water supply system, known as the Auxiliary Water Supply System (AVSS), does not cover large parts of Supervisorial Districts 1, 4, 7 and 11, roughly one-third of the City's developed area. As a result, these districts are not adequately protected from fires after a major earthquake.
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Report Title [Publication Date]	Acr Now Before It Is Aggressively Expand and Enhance Our and Enhance Our Flieflighting Water System [Unly 17, 2019]	Act Now Before It is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Fredighting Water System [Luly 17, 2019]

Recommendation Response Text	The commitment of sources for specific uses on specific tunientes of San Francisco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan in melline. The capital planning process gattles, document, and balances planned funding for needs across the public infrastructure portfolio and across San Francisco's resilience challenges. The Capital Plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tereed; (1) and address legal and/or regulatory mandates; (2) ensure public safety and enhance resilience; (3) preserve assets and promote sustainability; (4) address legal and/or regulatory mandates; (2) promote economic development. In the next 12-Pear Capital Plan and those that follow, the City will continue to analyze priority projects and programs and identity sources to advance those plontities. Committing to entirely funding a single program out of context and without regard for the trade-offs of that commitment would be out of step with the City's longstanding and highly regarded capital planning process and likely create significant vulnerabilities elsewhere in the portfolio.	d Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1 of each odd-numbered year for approval no later than May 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges. Updates available on this timeline would be included. The City cannot discuss the project and timeline until the ESER 2020 plan passes. For this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 3.1, 2021.
Recommendation Response (Implementation)	analysis	Will be implemented
Respondent Assigned by CGJ [Response Due Date]	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	General Manager, San Francisco Public Utilities Commission [September 15, 2019]
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	The plan discussed in Recommendation R1 should including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, searncelly awater system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	By no later than December 31, 2020, the Mayor, the SFPUC, the SFPD, and the Office of Resilience and Capital Planning should diotity present to the Board of Supervisors a detailed plan to ensure the City is well prepared to fight fires in all parts of San Francisco in the event of a 1906-magnitude (7.8) earthquake.
R# [for F#]	R2 [for F1-F6]	(for FJ-F6)
Finding Response Text	The SPPL(, SPP, and San Francisco Public Works (SPPW) are committed to increasing fire [protection throughout San Francisco, Since the passage of the first Earthquake Safety and Emergency Response Bond in 2010, the three agencies have been implementing projects to improve the AMSS system's salemic reliability and range of coverage. Enhancing the AMSS range of coverage to all areas of the City would require the allocation of funds to do so. The three agencies will continue to develop and implement projects utiliting new and proven technologies that improve upon the original system design. There have been many advancements in earthquake resistant pipeline design and materials, hydrants, and seismic valves since the early 1900, and the City intends to use the best possible technology available to meet the performance standards of the SFFD.	As the City considers what is essential to protect San Francisco, it is important to acknowledge our multiple, complex resilience challenges. These challenges are documented in the Resilient 5's strategy (2016) and underlie the strategic efforts of our capital investments as represented in the 10'vear Capital Plan (1sst updated 2019). These challenges are: Earthquakes, Sea Level Rise/Cimate Chalge, Aging Infrastructure, Unaffordability, and Social Inequity. All of these challenges represent meaningful threats to San Franciscans, their property, and their ability to make a life in the city. In making decisions about priority investments, San Francisco must keep an eye on all forthese challenges, identify the areas of greatest need across them, and make progress on all fronts similaneously. The City has taken significant steps since 2010 to ensure that the City has a high-pressure multi-sourced, seiemically safe EPVS. Since the passage of the first Earthquake Safety and Emergency Response Bond in 2010, SFPUC, SFPC, SF Public Works Bond in 2010, SFPUC, SFPC, SFPUC, SFPUC, SFPC, SFPUC, SFPC, SFPUC, SFPUC, SFPUC, SFPUC, SFPUC, SFPUC,
Finding Response (Agree/Disagree)	Agree with the finding	Agree with the finding
Respondent Assigned by CGJ (Response Due Date)	General Manager, San Francisco Public Utilities Commission (September 15, 2019)	General Manager, San Frandsco Public Utilities Commission (September 15, 2019)
Finding (text may be duplicated due to spanning and multiple respondent effects)	The City's high-pressure emergency water supply system, known as the Audillary Water Supply system (AWSS), does not cover large parts of Supervisorial Districts 1, 4, 7 and 11, 10, 10, 10, 10, 10, 10, 10, 10, 10,	A high-pressure, multi-sourced, seismically safe ennergency firefighting water supply will be costly but is essential to protect the City.
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Report Title [Publication Date]	Act Now Before it is Aggressively Expand and Enhance Our and Enhance Our Emergency Firefighting Water System [July 17, 2019]	Act Now Before it is Tog Late: Tog Late: Tog Late: And Enhance Our High-Pressure Foregency Firefighting Water System [July 17, 2019]

n Recommendation Response Text	The commitment of sources for specific uses on specific timelines (25 an Francisco's public infrastructure is the work of the 10 Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital planting process gathers, documents, and balances planned funding for needs across the public infrastructure portfolio and across San Francisco's resilientee a thenges; The Capital Plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tered; (1) address legal and/or regulatory mandates; (2) preserve assets and promote auchamballity, (4) address legal and/or regulatory mandates; (3) preserve assets and promote auchamballity, (4) advance planned and programmatic needs; and (5) promote economic development. In the next 10-Yee Capital Plan and those that follow, the City will continue to analyze priority projects and programs and identify sources to advance those programs and likely create significant volunerabilities elsewhere in the portfolio.	Will be implemented Ensuring that San Francisco has the infrastructure and resources to be well prepared for fight fires in all parts of San Francisco is something that will be a locus of the next 10-Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1 of each odd. Ourneered year for approval no later than May 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges, Lobates availale on this timeline would be included. The City cannot discuss the project and timeline until the ESER 2020 plan passes, co'r this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 31, 2021.
Recommendation Response (Implementation)	analysis	Will be implement
Respondent Assigned by CGJ [Response Due Date]	General Manager, San Francisco bublic Utilities Commission [September 15, 2019]	e Francisco Public Utilities Commission (September 15, 2019)
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	The plan discussed in Recommendation R1 should including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, sestimically avers of a high-pressure, multi-sourced, sestimically asset mengenor water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	By no later than December 31, 2020, the Mayor, General Manager, San flor &FPUC, the SFPU, and the Office of Resilience Francisco Public Utilities and Capital Planning should jointly present to Commission the Board of Supervisors a detailed plan to ensure the City is well prepared to fight fires in all parts of San Francisco in the event of a 1906-magnitude (7.8) earthquake.
R# [for F#]	R2 [for F1-F6]	(for F1-F6)
Finding Response Text	As the City considers what is essential to protect San Francisco, it is important to acknowledge our multiple, complex resilience challenges. These challenges are documented in the Resilient SF strategy (2016) and underlie the strategic efforts of our capital investments as represented in the Diver Capital plan (last updated 2019). These challenges are: Earthquakes, Sea Level Rise/Climate Change, Aging Infrastructure, Unsifordability, and Social inequity. All of these challenges represent meaningful threats to San Franciscans, their property, and their ability to make a life in the city. In maxing decisions about priority investments, San Francisco must keep an eye on all of these challenges, identify the areas of greatest need across them, and make progress on all fronts simultaneously. The City has taken significant steps since 2010 to ensure that the City has a high-pressure multi-sourced, selsmically safe EVMS. Since the passage of the first Earthquake Safety and Emergency Response Bond in 2010, SFPUC, SFED, SPUD SPUDS whorks have been implementing projects to improve the system's seismic reliability and range of coverage. The three a gendred swill continue to implement projects utiliting new and proven technologies that improve upon the original system design.	Decisions about programming and funding levels of future ESER bonds and other complementary sources that could support the expansion of the AWSS have yet to be made.
Finding Response (Agree/Disagree)	finding finding	Disagree, wholly
Respondent Assigned by CGJ [Response Due Date]	General Manager, San Frantico Public Utilities Commission (September 15, 2019)	General Manager, San Francisco bublic Utilities Commission (September 15, 2019)
Finding (text may be duplicated due to spanning and multiple respondent effects)	A high-pressure, multi-sourced, seismically safe emergency frefighting water supply will be costly but is essential to protect the City.	Unless the City increases funding levels, it will be General Manager, San several decades (i.e., after the USGS predicts Francisco Public Utilities one or more major earthquakes will occur) before the southern parts of the City have a high- [September 15, 2019] pressure, multi-sourced, seismically safe emergency fireflighting water supply.
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Report Title [Publication Date]	Act Now Before It is Aggressivele: And Enhance Our and Enhance Our Energency Frieflighting Water System (July 17, 2019)	Act Now Before It is Tool ales: Aggressively Expand and Enhance Our English-Pressure English-Pressure Firefighting Water System [July 17, 2019]

Recommendation Response Text	The commitment of sources for specific uses on negative timeline of the 20 son Fandsco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital plan, and based on analysis, will be done on the capital plan intelline. The capital planning process planned shares, documents, and balances planned funding for needs across the public infrastructure portfolio and across San fractices resilience, and planning for needs across the public infrastructure portfolio and across San fractices of the public infrastructure infrastructure protropic and across sent eleced (1) advances planned and proper asset infered; (2) advance planned and promote sustainability, (4) advance planned and proper assinability, (4) advance planned and programmatic needs; and (5) promote economic development. In the next (5) promote economic development in the next (14) advance planned and programmatic needs; and (5) promote economic development. In the next (15) promote economic development in the next (14) advance planned and programmatic needs; and (15) promote economic development in the next regard for the trade-offs of that commitment would be out of step with the (17)/s would be out of step with the (17)/s longstanding and highly regarded capital planning process and likely regarded capital	SFDUC and SFFD will complete this study by June 30, 2021.	30, 2021.
Recommendation Response (Implementation)	Requires further The analysis spirite and the	Will be implemented SE 30	Will be implemented SE
Respondent Assigned by CGJ [Response Due Date]	General Manager, San If Francisco Public Utilities i Commission [September 15, 2019]	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	General Manager, San Francisco Public Utilities Commission (September 15, 2019)
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	The plan discussed in Recommendation R1 should include a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, spinsically safe emergency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	The SFPUC, the SFFD and the SF Department of the Environment should study adding salt-water pump stations to improve the redundancy of water sources, especially on the west side. Findings and recommendations from this study should be presented to the Board of Supervisors by no later than June 30, 2021.	The SFPUC, the SFFD and the SF Department of the Environment should study adding salt-water purpose the redundancy of water sources, especially on the west side. Findings and recommendations from this study should be presented to the Board of Supervisors by no later than June 30, 2021.
R# [for F#]	R2 [(or F1-F6]	R6 [for F8-F9]	R6 (for F8-F9)
Finding Response Text	Decisions about programming and funding levels of future ESR budges and other complementary [8] of future ESR budges and other conditions of the AWSS have yet to be made.		While it is true that the SFPUC and SFFD are studying four penntial water sources proposed I to supply a potable EFWS on the west side of the City, which are not located north of Golden Gate Park, which by no means would reduce the proposed system's resiliency, reliability, performance, or ability to provide abundanh high persorne water frof fire suppression to the Richmond District after a soisinic event. San Francisco is unique in that there are 11 in-city reservoirs, with a total water capacity of approximately 43,000,000,000 gapproximately 43,000,000,000 gapproximately 43,000,000,000 gapproximately 43,000,000,000 Gapproximately 43,000,000,000 Gapproximately 43,000,000,000 Gapproximately 400,000,000,000 Gapproximately 400,000,000,000 Gapproximately 400,000,000,000 Gapproximately 67 Bar Francisco that is being developed and analyzed would provide that the move EFWS pipeline in the Strusset and Richmond Districts could be supplied to the EFWS pipeline water at two locations. The first two water sources could be supplied to the EFWS pipeline win a 30,000 gallon per minute pump station are Lake Marced, The two sources being studied for this pump station are Lake whered, which has a water supply of approximately one billion gallons, and a 60° seismically resilient SFPUC Hetch Hetchy Selsminghille. The proposed potable EFWS slote pipeline. The proposed potable EFWS slote pipeline. The proposed potable EFWS also an animal proving the inclusion of a second 30,000 gallons per minute pump station at
Finding Response (Agree/Disagree)	Disagree, wholly	Agree with the finding	Disagree, partially
Respondent Assigned by CGJ [Response Due Date]	General Manager, San Francisco Public Utilities Commission (September 15, 2019)	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	General Manager, San Francisco Public Utilities Commission [September 15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	Unless the City increases funding flevels, it will be General Manager, San sevent cades (i.e., after the Utility or or more mades (i.e., after the Supplied Utility or or more man or more mans of the Supplied Commission before the southern parts of the Supplied Commission before the southern parts of the Supplied Commission before the southern parts of the Supplied Commission or work of seven and seven sev	Redundancy is an important feature of an emergency firefighting water system.	Current plans to extend protections to the western part of the City do not include any high-pressure water sources north of Golden Gate Park.
i dogali	8	82	9.
Report Title [Publication Date]	Act Now Before it is form to the factor of t	Act Now Before it is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	Act Now Before it is Too Late: Aggressively Expand and Enhance Our High-Pressure Firefighing Water System [July 17, 2019]

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Recommendation Response Text	June 30, 2021.	
Recommendation Response (Implementation)	Will be implemented	
Respondent Assigned by CGJ [Response Due Date]	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	The SFPUC should (a) continue its efforts to compute a more detailed analysis of emergency fireflighting water needs (including above-themedian needs) by neighborhood, and not just by FAA, and (b) present a completed analysis to the Board of Supervisors by no later than June 30, 2021.	
R# [for F#]	(for F10]	
Finding Response Text	Fire Response, Aroas (FRA) were utilized by SFPUC and SFPD in the planning study CG-199. This study divided the City into areas based on those defined by the SFPD for intial alarm response and were called fire Response, Areas (FRA). Probable fire demands were developed for each FRA utility at 1000 sets of fire demands generated by Charles Scawthon. PhD using a Monte Carlo analysis of fire ignitions, and fire genion each FRA utility at 1000 sets of fire demands generated by Charles Scawthon. PhD using a Monte Carlo analysis of fire ignitions and fire genoul motions from the design earthquake (1.8 mgmude). The fire lignitions subsequently were used to develop water of the those used for the Community Action Plan for Seismic Safety (CAPS) study fixt. 2010). The fire lignitions subsequently were used to develop water demands that were aggregated into the likely fire demands for each FRA. The water supplies for each FRA were developed at Comell University by Professors Thomas D. O'Rourke, GiRAFF performs internal Monte Carlo analysis to damage pipes in the system for multiple scenarior. The water supplies for each FRA water supplies for each FRA assumed no water from the City's municipal assumed into water from the City's municipal assumed in water from the City's municipal assumed in water system (MWSS), which is quite assumed in varier and FRA assumed in varier from the City's municipal assumed in the filly guite each FRA assumed in water system (MWSS), which is quite	The EPWS was built after the 1906 earthquake, and its location, primarily in the northeast portion of San Francisco, corresponds to the location of the majority of the city's population at that time. Since 2010, the SFPUC, SFFD, and believ Works have made critical improvements to the existing EFWS system. Expanding the EFWS prior to ensuring that the existing EFWS is statisfier and existent and entables would have controdicted best engineering practices. The SFPUC and SFPD are developing plans that would implement a redeveloping plans that would implement a redeveloping plans that would implement a few steps of the SFPUC and SFPD are developing plans that would implement a forthe Westside of San Francisco. The potable EFWS for the Westside of San Francisco. The potable EFWS for the Westside of San Francisco that is capable of providing water system to the Western neighborhoods in to the SFFD finefighters at the high-pressure needed for finefighters to combat lang fires after a seismic event, and is likely to include potentially two new pump stations likely to be supplied by four water sources. The SFPUC and SFPS potable EFWS is being designed in a manner that allows for agility and the elicibility to add new technologies and water sources, and in a manner that allows for agility and the elicibility and the future to serve additional areas.
Finding Response (Agree/Disagree)	Disagree, partially	Disagree, partially
Respondent Assigned by CGJ [Response Due Date]	General Manager, San Internation Utilities Commission [September 15, 2019]	
Finding (text may be duplicated due to spanning and multiple respondent effects)	The *reliability scores* being used by the SFPUC impart an overty optimistic impression of the protection provided.	The City does not have a timeline to fund and ceneral Manager, San complete development of a high-pressure, multi-l Francisco Public Utilities sourced, seismically safe emergency water Commission supply for all parts of the City, Including poor [September 15, 2019] neighborhoods that historically have not been as well protected as the downtown business district and many richer neighborhoods.
#	610	12
Report Title [Publication Date]	Act Now Before It Is Too Laster Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System (July 17, 2019)	Act Now Before it is Toglessively Expand and Enhance Our High-Pressure Temegency Firefighting Water System [July 17, 2019]

Recommendation Response Text	(a) SFPUC implements * Dest practices* for the maintenance of AWSS assest in colaboration with SFD, and consistent with the terms of the Memorandum of Understanding Regarding Operation and Maintenance of San Francisco Departure and Maintenance of San Francisco Water Supple Systems Related to Fire Suppression (MOU), SFPUC will seek SFFD's superassion (MOU), SFPUC will seek SFFD's supering a special compromise* the system's function as a high pressure freifighting system's function as a high pressure freifighting system's function as a high pressure freifighting system (MOU, page 2). (ID) A MSS SCRILICAL shake been identified and will be exercised every year through the AWSS Critical Valve Exercise Program.	will be implemented SFFD and SPDUC will work together to amend the MOU by June 30, 2020.
Recommendation Response (implementation)	Has been minplemented of minplemented of with the management of the minplement of th	Will be implemented S
Respondent Assigned by CGJ [Response Due Date]	General Manager, San Francisco Public Utilities Commission (September 15, 2019)	General Manager, San Francisco Public Utilities Commission [September 15, 2019]
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	by no later than December 31, 2020 the SPUC, with the advisoral of the SPTO, should (a) implement "best practices" for the maintenance of AWSS assets, and (b) redefine whith AWSS valves in the system and "critical," and, therefore, require more attention and priority in the SFDUC's maintenance plans.	By no later than June 30, 2020, the 2015 MOU between the SPDLC and the SFD should be amended to include a detailed estainabat for annual emergency response exercises, including simulated disaster and earthquake drills involving the AWSS and the PWSS.
R# [for F#]	(for F12) v	(for F13)
Finding Response Text	Since taking over maintenance responsibilities, SFPUC has completed significant maintenance activities. For example, on a monthly basis, staff from the SFPUC test both Pump Station #1 and Pump Station #1 and maintenance Percommended in the CS-199 study as shown below in Table 7-1 from CS-199. The SFPUC has developed several of the routine maintenance plans recommended in the report maintenance practice is not necessary (i.e. flushing of a non-potable water system). Maintenance Recommendations, CS. 199 Task 11 TN: Maintenance Recommendation 1: Confirm that all AWSS assets are entered into CDD's asset management system and PM's are established strength into CDD's Maximo and GIS databases. PM's are established for regular maintenance. Recommendation 2: Perform Regular maintenance Rescommendation 2: Perform Regular maintenance Rescommendation 2: Perform Regular maintenance and testing is performed in accordance with maintenance plans.	There are no formal protocol outlining specific join AWSS exercises or drills in the MOU; however, there are multiple opportunities to train together during operation, maintenance, and construction of improvement projects for the AWSS facilities as previously described in the response to the Grand Jury questions sent in May 2019. The SFFD and SFPUC have had multiple field training opportunities during the maintenance and start-up tensing of AWSS facilities in the last SFP and SFPUC personnel conducted SFP years. For example, on December 20, 2018, SFPUC and SFPU certomed joint-department field-scale test of AWSS our procedures for Pump Station No. 2 [PS2), On April 5, 2018 SFPU Cand SFPU performed joint-department field-scale test of AWSS outloution through system hydrants. On August 199, 2018, SFPUC, SFPD and DPW personnel conducted a seawater into an isolated section of the AWSS distribution through system of Por Neuroscilos 19 for SFPU performed a seawater drating drill and confirmation test from the new suction of the AWSS distribution through system of SFPU ceriodically test different facilities to assure systems are in good working order, and to train personnel on operations and joint-searce and section of the AWSS distribution that act and its train personnel on operations and joint-searce emergency exercise was performed between SFFD and SFPUC staff in January 2016
Finding Response (Agree/Disagree)	Disagree, wholly	Disagree, partially
Respondent Assigned by CGJ [Response Due Date]	General Manager, San Francisco bublic Utilities Commission (September 15, 2019)	General Manager, San Frankisco Public Utilities Commission (September 15, 2019)
Finding (text may be duplicated due to spanning and multiple respondent effects)	The SFDUC has not developed a number of the truthe maintenance plans recommended in a 2014 report (CS-198), and has not adequately defined which AWSS valves are "Critical" and therefore require increased attention.	In the 2015 MOU between the SFFD and the SFPD and the SFPD, the two agencies agreed to conduct joint SFPC, the two agencies agreed to conduct joint AWSS trainings annually, but there is no formal protocol outlining specific joint AWSS exercises or drills using hypothetical disaster scenarios, such as a major earthquake.
#	F12	F13
Report Title [Publication Date]	Act Now Before it is Too Late: Agerssively Expand and Enhance Our Hell-Pressure Emergency Firefighting Water System [July 17, 2019]	Act Now Before it is Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [Luly 17, 2019]

Recommendation Response Text	Ensuring that San Francisco has the finantizatructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-18 and the San Capital Plan. Her Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1 of each odd. 1. The requested presentation would be enable holistic planning across San Francisco's resilience challenges. Updates available on this timeline would be included. The City cannot discuss the project and timeline would be locking some special plan included. The City cannot discuss the project and timeline until the ESER SOAD plan passes. Con this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 31, 2021.	The commitment of sources for specific uses on specific timelines for San Francisco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital planning process gathers, documents, and balances planned funding for needs across the public infrastructure portfolio and across San Francisco's resilience challenges. The Capital Plan has longstanding funding principles to guide the prioritation of public infrastructure investments. These investments are tiered; (1) address legal and/or regulatory mandates.) (2) ensure public safety and enhance resilience; (3) dadvance planned and programmatic needs; and (5) promote economic development. In the next 10-Year Capital Plan and those that follow, the City will continue to analyze priorities. Committing to entirely funding a single program out of context and without regard for the trade-offs of that commitment would be out of step with the City's longstanding and highly regarded capital planning process and likely recare significant vulnerabilities elsewhere in the portfolio.	Ensuring that San Francisco has the infrastructure and resources to be well prepared for fight fires in all parts of San Aractics is something that will be a focus of the next 10-Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March. 1 of each oddnumbered year for approval no later than May In The requested presentation would be numbered year for approval no later than May In requested presentation would be easilence challenges. Updates available on this timeline would be included. The City cannot discuss the project and timeline would be included. The City cannot discuss the project and timeline would be included. The City wall sync this recommendation with the Capital Plan, and push back the timeline to December 31, 2021.
Recommendation Response (Implementation)	Will be implemented	analysis.	Will be implemented
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department [September 15, 2019]
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	By no later than December 31, 2020, the Mayor, the FPUC, the RFPL, and the Doffice of Resilience and Capital Planning should jointly present to the Board of Supervisors a detailed plan to the Board of Supervisors a detailed plan to all parts of San Francisco in the event of a 1906-magnitude (7.8) earthquake.	The plan discussed in Recommendation R1 should include a detailed proposal, including should include a detailed proposal, including years of a high-pressure, multi-sourced, seismically safe emergency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	By no later than December 31, 2020, the Mayor, the SFPUC, the SFFD, and the Office of Resilience and Capital Paining should fourly present to the Board of Supervisors a detailed plan to ensure the City is well prepared to fight fires in all parts of San Francisco in the event of a 1906-magnitude (7.8) earthquake.
R# [for F#]	R1 (for F1-F6)	(for F1-F6)	R1 [for F1-F6]
Finding Response Text			The MWSS has been significantly upgraded in the last 15 years through the Water Supply throwemen through the Water Supply introvement Program (WSI) pinitated by the SFPUC. The goals of WSIP included to reduce vulnerability of the water system to damage from a cartiquates and increase overall water system reliability. There were 35 in-city projects within the 54.8 billion-dollar program. The WSIP within the 54.8 billion-dollar program. The WSIP within the 54.8 billion-dollar program. The WSIP by San Francisco, and one of the largest water infrastructure programs in the nation. By San Francisco, and one of the largest water infrastructure programs tangeted and strategic infrastructure programs tangeted specifically at improving a water system's seekinc reliability and resilience. Additionally, it is unique because the WSIP utilized a 7.8 magnitude earthquake as its seismic Level of Service.
Finding Response (Agree/Disagree)	Agree with the finding	finding	Disagree, partially
Respondent Assigned by CGJ [Response Due Date]	Chiel, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department [September 15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	Fires resulting from an earthquake represent a significant risk of widespread damage and potential loss of life in San Francisco.	Fires resulting from an earthquake represent a significant risk of widespread damage and potential loss of life in San Francisco.	The municipal water supply system (NWMSS) is highly vulnerable to damage from a major earthquake and is not a reliable source for water supply for firefighting after a major earthquake.
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Report Title [Publication Date]	Act Now Before it is Too Late: Too Late: Too Late: And Enhance Our and Enhance Our Emergency Firefighting Water System [July 17, 2019]	Act Now Before it is Aggressively Espand and Enhance Our High-Pressure Emergrand System [Luly 17, 2019]	Act Now Before it is Too Late: Too Late: Begressively Expand and Enhance Our High-Pressure Energency Freelighting Water System [July 17, 2019]

Recommendation Response Text	The commitment of sources for specific uses on specific tumients of San Francisco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be setrowedged in the Capital Plan, and plased on analysis, will be done on the capital plan timeline. The capital planning process gathers, documents, and balances planned funding for needs across the public infrastructure portfolio and across San Francisco's resilience challenges. The Capital Plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tereed; (1) address legal and/or regulatory mandates; (2) ensure public safety and enhance resilience; (3) preserve assets and promote ustabinability; (4) address legal and/or regulatory mandates; (2) ensure public safety and enhance resilience; (3) preserve assets and promote ustabinability; (4) address legal and/or regulatory mandates; (2) ensure public safety and enhance resilience; (3) promote economic development. In the next 10-Year Capital Plan and those that follow, the City will continue to analyze priority projects and programs and identify sources to advance those priority projects and programs and identify sources to advance those priority projects. Committent to analyze priority projects and programs and identify regarded commitment would be out of step with the City's longstanding and highly regarded crust gegrificant under brougen out of context and without regard for the trade-offs of that commitment would be out of step with the City's longstanding and highly regarded restablishes elsewhere in the portfolio.	Instanting that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10. Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 10 feach oddnumbered year for approval no later than May. 1. The requested presentation would be delevered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges. Updates available on this timeline would be included. The City cannot discuss the project and timeline until the ESR 2020 plan passes. For this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 31,
Recommendation Response (Implementation)	analysis	Will be implemented
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department [September 15, 2019]	, Chief, San Francisco Fire to Department (September 15, 2019)
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	The plan discussed in Recommendation R1 should including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, with 15 years of a high-pressure, multi-sourced, estimically asset emergemory water system for those parts of the City, that don't currently have one, i.e., by no later than June 30, 2034.	By no later than December 31, 2020, the Mayor, [for F1-F6] the SFUC, the SFD, and the Office of Resilience and Capital Planning should jointly present to the Board of Supervisors a detailed plan to ensure the City is well prepared to fight fires in all parts of San Francisco in the event of a 1906-magnitude (7.2) earthquake.
R# [for F#]		R1 [for F1-F6] [
Finding Response Text	The MWSS has been significantly upgraded in the last 15 years through the Water Supply improvement Program (WSIP) initiated by the SPUC. The goals of WSIP included to reduce Valuriarishity of the water system to damage from earthquakes and increase overall water system reliability. There were 35 in-city projects which the 54.8 allion-dollar program. The WSIP was the largest capital program ever undertaken by San Francisco, and one of the largest water harstnessed and instancture upograms in the nation. Additionally, it is one of the only comprehensive and strategic infrastructure programs targeted and strategic infrastructure programs targeted and strategic infrastructure programs targeted septificially at improving a water system? seismic reliability and resiliency. Additionally, it is unique because the WSIP utilitied a 7.8 magnitude earthquake as its seismic Level of Service.	Gistems serve as one of many important tools for use by the SFPD in response to a disaster. Gistem locations are strategically located in the City in the event of a major conflagration to assist as a "Demarcation Line" on some of The City's major thoroughfares. This was realized after the 1906 earthquake. With work accomplished through the ESER bond program, disterns have been sestimically improved throughout the City and the overall number of disterns has increased to approximately 230, providing the Fire Department access to millions of gallons of water in an emergency.
Finding Response (Agree/Disagree)	Disagree, partially	Agree with the finding
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department [September 15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	The municipal water supply system (MWSS) is 6 highly vulnerables to damage to a reliable from a major but	Approximately 30 distems have recently been added with funds from ESER bonds, but distems only have up to about an hour of water supply and thus do not provide sufficient water for fighting fires following a major earthquake.
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Report Title [Publication Date]	Act Now Before It is Aggressively Expand and Enhance Our and Enhance Cour finefighting Water System [July 17, 2019]	Act Now Before it is Too Late: Aggressively Expand and Enhance Our High-Pressure Ferregency Firefighting Water System [July 17, 2019]

Recommendation Response Text	The commitment of sources for specific uses on specific tunients of So San Francisco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan inmeline. The capital planning process gather, Accuments, and balances planned infrastructure portfolio and across San Francisco's resilience rechallenges. The Capital Plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These twestments, These investments are tiered; (1) address legal and/or regulatory mandates; (2) ensure public safety and enhance resilience; (3) preserve assets and promone sustainability; (4) advance planned and programmatic needs; and dispracted and programmatic needs; and program out of context and without eagard for the trade-offs of that commitment would be out of step with the City's longstanding and highly regarded capital plan process and likely create significant underabilities elsewhere in the portfolio.	Will be implemented Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan, Ber Administrative Code 3.20, that Plan must be submitted to the Mayor and Board not later than March 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges. Updates available on this timeline would be included. The City cannot discuss the project and timeline would the included. The City cannot discuss the project and timeline would the included. The City cannot discuss the project and timeline would the Capital Plan, and push back the timeline to December 31, 2021.
Recommendation Response (Implementation)	analysis further is in the polytic state of the pol	Will be implemented in the imple
Respondent Assigned by CGJ (Response Due Date)	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department (September 15, 2019)
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	The plan discussed in Recommendation R1 and dinduct a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, sepaincially safe emergency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	By no later than December 31, 2020, the Mayor, Chief, San Francisco Fire the SFPU, the SFPD, and the Office of Resilience Department and Capital Planning should jointly present to free Board Supervisors a detailed plan to ensure the City is well prepared to fight fires in all parts of San Francisco in the event of a 1906-magnitude (7.8) earthquake.
R# [for F#]	[for F1-F6]	R1 [for E1-F6]
Finding Response Text	Gisterns serve as one of many important tools for use by the SFD in response to a disaster. Gistern locations are strategically located in the City in the event of a major conflagration to assist as a "Demaration Line" or some of The City's major thoroughtness. This was realized after the 1906 earthquake. With work accomplished through the ESEs bond program, cisterns has increased to approximately 130, providing the Fire Department access to millions of gallons of water in an emergency.	The SFPUC, SFPD, and San Francisco Public Works (SFPW) are committed to increasing fire provection throughout San Francisco. Since the passage of the first Earthquake Salety and Emergency Response Bond in 2010, the three agencies have been implementing projects to improve the AWSS system's sealinc reliability and range of coverage. Enhancing the AWSS rarge of coverage to all areas of the City would range of coverage to all areas of the City would require the allocation of funds to do so. The three agencies will continue to develop and implement projects utilizing new and proven implement projects utilizing new and proven dimplement projects utilizing new and proven allocation of understand projects utilizing and materials, hydrants, and seismic advancements in earthquake resistant pipeline decign and materials, hydrants, and the City intends to use the best possible technology available to meet the performance standards of the SFFD.
Finding Response (Agree/Disagree)	Agree with the finding	finding finding
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department [September 15, 2019]	Chlef, San Francisco Fire Department [September 15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	Approximately 30 cisterns have recently been added with funds from ESES bonds, but cisterns only have up to about an hour of water supply and thus do not provide sufficient water for fighting fires following a major earthquake.	The City's high-pressure emergency water supply system, known as the Auxiliary Water Supply System (MVSS), does not cover large parts of Supervisorial Districts 1, 4, 7 and 11, roughly one-third of the City's developed area. As a result, these districts are not adequately protected from fires after a major earthquake.
#	E	74
Report Title [Publication Date]	Act Now Before it is Acts Now Before it is Aggressively Expand and Enhance Our and Enhance Our Emergency Firefighting Water System [July 17, 2019]	Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]

Recommendation Response Text	The commitment of sources for specific uses on specific timelines for San Franksios's public inforsitives for San Franksios's public inforsitives to the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be aschowledged in the Capital Plan, and based on analysis, will be done on the capital plan timeline. The capital planning process gathers, documents, and balances planned funding for needs across the public infrastructure portfolio and across San Franksios's resilience challenges. The Capital Plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tereed; (1) address legal and/or regulatory mandates; (2) ensure public safety and enhance resilience; (3) preserve assets and promore ususfambility; (4) advance planned and programmatin needs; and (5) promote economic development. In the next 10-Year Capital Plan and those that follow, the City will continue to analyze priority projects and programs and identify sources to advance those priorities. Committing to entirely funding a single program out of context and without regard for the trade-offs of that commitment would be out of step with the City's longstanding and highly regarded capital planning process and likely reagered capital	Will be implemented The Department is currently finalizing specifications for these units, after which they yealig out to bid through the City is procurement processes before construction. It is anticipated the Department will take receipt of these units in the second half of 2020/early 2021. These hose tenders are a heavy-duty apparatus designed to be able to be deployed and moved throughout the City depending on need, giving the Department needed operational flexibility in its response.
Recommendation Response (Implementation)	analysis	Will be implemented
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department [September 15, 2019]	y Chief, San Francisco Fire Department (September 15, 2019)
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	The plan discussed in Recommendation R1 Should include a detailed gloopsal, including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, estaincially age energenor water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	The SFFD should strategically locate the majority Chief, San Francisco Fire of the PWISS hose tenders in areas that at present only have low-pressure hydrants and/or [September 15, 2019] cisterns.
R# [for F#]	[for E, F6] 1	[for F4] (
Finding Response Text	The SPDUC, SFFD, and San Francisco Public Mays (SFPW) and San Francisco. Since the prostection throughout San Francisco. Since the passage of the first Earthquake Salety and Emergency Response Bond in 2010, the three agencies have been implementing projects to improve the AWSS system's seismic reliability and range of coverage. Enhancing the AWSS range of coverage to all areas of the City would require the allocation of funds to do so. The three agencies will continue to develop and implement projects utiliting new and proven the eagencies will continue to develop and implement projects utiliting new and proven technologies that improve upon the original system design. There have been many advancements in earthquake resistant pipeline design and materials, hydrants, and seismic valves since the earty 1300s, and the City intends to use the best possible technology available to meet the performance standards of the SFFD.	The SFPUC, SFPD, and San Francisco Public Works (SFPV) are committed to increasing fire protection throughout San Francisco. Since the passage of the first Eartquake Safety and ferrengency Response Bond in 2010, the three agencies have been implementing projects to improve the AWDS system's seismic reliability and range of coverage. Enhancing the AWDS range of coverage to all areas of the City would require the allocation of funds to do so. The three agencies will continue to develop and implement projects utilizing new and proven technologies that improve upon the original system design. There have been many etchnologies that improve upon the original advancements in eartquake resistant pipeline design and materials, hydrants, and setsmic valves since the early 1900s, and the City infinited to use the best possible technology available to meet the performance standards of the SFPD.
Finding Response (Agree/Disagree)	Agree with the finding	finding
Respondent Assigned by CGJ (Response Due Date)	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department (September 15, 2019)
Finding (text may be duplicated due to spanning and multiple respondent effects)	The City's high-pressure emergency water supply system (wwws as the Audillay Water Supply System (wWSS), does not cover large parts of Supervisorial Districts 1, 4, 7 and 11, aroughly one-high of the City's developed area. As a result, these districts are not adequately protected from fires after a major earthquake.	The City's high-pressure emergency water supply system, known as the Audilary Water Supply System (kWSS), does not cover large parts of Supervisorial Districts 1, 4, 7 and 11, or or orghly on-chiffed of the City's developed area. As a result, these districts are not adequately protected from fires after a major earthquake.
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Report Title [Publication Date]	Act Now Before It is Aggressively Expand and Enhance Our High-Fussure Emergency System (July 17, 2019)	Act Now Before it is Aggressively Expand and Enhance Our and Enhance Our Emergency Firefighting Water System [July 17, 2019]

Recommendation Response Text	Ensuring that San Francisco has the linearuring that are sources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-sourching that will be a focus of the next 10-sourching that will be a focus of the next 10-sourching that will be a focus of the next 10-sourching that will be a focus of the Mayor and Board no later than Mary 1. The requested presentation would be the delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges. Updates available on this timeline would be included. The Cty cannot this included the Cty cannot a discuss the project and timeline until the ESER 2020 plan passes. For this reason, the Cty will sync this recommendation with the Call Plan, and push back the timeline to December 31, 2021.	The commitment of sources for specific uses on specific tunelines for San Fanctsco's public infrastructure is the work of the 10-Vear Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital plan, and based on analysis, will be done on the capital plan sheet on analysis, will be done on the capital plan imedine. The capital planning process gathers, documents, and balances planned funding for needs across the public infrastructure portfolio and across San Francisco's resilience challenges. The Capital Plan has longstanding funding principles to gathe the principlation of public infrastructure investments. These investments are tiered; (1) address legal and/or regulatory mandates; (2) preserve assets and promote sustainability; (4) advance planned and programmatic needs; and (5) promote economic development. In the next 10-Year Capital Plan and those that follow, the City will continue to analyze priority projects and proformers and identify sources to advance those priorities. Committing to entirely funding a single program out of context and without regard for the trade-offs of that commitment value bound to step with the City yes of the commitment regard for the trade-offs of that commitment regard for the trade-offs of that commitment regard for the trade-offs of that commitment and planning process and likely create significant vulnerabilities elsewhere in the portfolio.
Recommendation Response (Implementation)	Will be implemented	analysis
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department (September 15, 2019)
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	By no later than December 31, 2020, the Mayor, resplicit, existing the SPIPO, and the Office of Resilience and Capital Planning should jointly present to the Board of Supervisors a detailed plan to the Board of Supervisors a detailed plan to the Board of Supervisors a detailed plan to all parts of San Francisco in the event of a 1906-magnitude (7.8) earthquake.	The plan discussed in Recommendation R1 should include a detailed proposal, including financing sorters, for the Installation within 15 years of a high-pressure, multi-coursed, seismically safe emergency water system for those parts of the City that don't currently have one, I.e., by no later than June 39, 2034.
R# [for F#]	[for F1-F6]	R2 [for F1-F6]
Finding Response Text	At the City considers what is essential to protect San Francisco, it is important to acknowledge our multiple, complex resilience challenges. These challenges are documented in the Resilient SF strategy (2016) and underliet the strategic efforts of our capital investments as represented in the 10-Year Capital Plan (1sst uppersented in the 10-Year Capital Plan (1sst important of particular displanting the strategic efforts of our capital investments as represented in the 10-Year Capital Plan (1sst importance). These challenges are: Earthquakes, Sea Level Rise/Climate Change, Aging infrastructure, Unaffordability, and Social Impedity, All of these challenges represent meaningful threats to San Franciscans, their property, and their ability to make a life in the diseasts need careson such as an even on all forthes challenges, identify the areas of all forthes challenges, identify the areas of all forthes simultaneously. The City has taken significant steps since 2010 to ensure that the City has a high-pressure multi-sourced, on all forths simultaneously. The City has a significant steps since 2010 to ensure that the first Earthquake Safety and Emergency Response Bond in 2010, SPEPUC, SFED, SFE Public Works have been implementing projects to improve the system's selamic reliability and range of coverage. The three agencies will continue to implement projects utilizing new and proven technologies that improve upon the original system design.	As the City considers what is essential to protect San Francisco, it is important to acknowledge untuitible, complex resilience challenges. These challenges are documented in the Resilient 5F strategy (2016) and underlie the Resilient 5F strategy (2016) and underlie the Resilient 5F strategy (2016) and underlie the Earthquakes, Sea Level Rise/Cilmate Change, Aging in Airstructure, Unaffordability, and Social inequity, All of these challenges represent meaningful threats challenges represent meaningful threats to San Franciscans, their property, and their ability to make a life in the city, in making decisions about princity. In making decisions about princity on all fronts simultaneously. The City has taken significant steps since 2010 to ensure that the City has a high-pressure multi-sourced, seismically safe EPWS. Since the passage of the Bond in 2010, SFPUC, SFPD, 5F Public Works have been implementing projects to improve the system's seismic reliability and range of coverage. The three agencies wand proven technologies that improve upon the original system design.
Finding Response (Agree/Disagree)	Agree with the finding	finding finding
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department [September 15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	A high-pressure, multi-sourced, seismically safe emergency firefighting water supply will be costly but is essential to protect the City.	A high-pressure, multi-sourced, selemically safe emergency firefighting water supply will be costly but is essential to protect the City.
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Report Title [Publication Date]	act Now Before it is Too last act Now Before it is Aggressively Expand and Enhance Our Hinefighting Water System (July 17, 2019)	Act Now Before It Is Too Late: Too Late: And Enhance Dry High-Pressure Free Brengency Freighting Water System [July 17, 2019]

Recommendation Response Text	infrastructure and executes to be well prepared infrastructure and executes to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1 of each odd-numbered year for approval no later than May 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges, Lopdets each adulation this timeline would be included. The City cannot discuss the project and timeline until the ESER 2020 plan passes. For this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 31, 2021.	The commitment of sources for specific uses on specific timelines for San Francisor's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan timeline. The capital planning process gathers, documents, and balances planned funding for needs across the public infrastructure portfolio and across San Francisor's resilience challenges. The Capital Plan has longstanding funding principles to guide the prioritation of public infrastructure investments. These investments are tiered; (1) address legal and/or regulatory mandates; (2) preserve assets and promote sustainability; (4) advance public safety and enhance realilence; (3) preserve assets and promote sustainability; (4) advance planned and programmatin needs; and (5) promote economic development. In the next 10-Year Capital Plan and those that follow, the city will continue to analyze priority projects and program and identify sources to advance those priorities. Committing to entirely funding a single program and identify sources to advance those priority regarded capital planning process and likely regarded capital planning pr	The Fire Department has been allocated funding to purchase five units through funds from the PA19-20 City budges and an allocation from the State. The Department is currently working with the Office of Contract Administration to develop a multi-year term contract for hose tenders so in the case that additional funding is secured in future years, the Department will be able to reduce the amount of time for procurement of the apparatus. Each hose tender cost 51 million each, and we need to weigh purchase of additional hose tenders to other budget request and priority.
Recommendation Response (Implementation)	Will be implemented	analysis	analysis
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department [September 15, 2019]	Chlef, San Francisco Fire S Department [September 15, 2019]
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	By no later than December 31, 2020, the Mayor, the SFDU, the SFD, and the Office of Resilience and Capital Planning should jointly present to the Board of Supervisors a detailed plan to the Board of Supervisors a detailed plan to all parts of San Francisco in the event of a 1906-magnitude (7.8) earthquake.	The plan discussed in Recommendation R1 should include a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, selsmically safe emergency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	As interim measure, by no later than June 30, Chief, San Fr. 2021, the City should purchase the 20 new PWSS Department hose tenders being requested by the SFP, to [September: replace and expand its currently inadequate inventory.
R# [for F#]	R1 [for E1-F6]	[for F1-F6]	[for F6-F7]
	Decisions about programming and funding levels future ESSR bands and other complementary if sources that could support the expansion of the AWSS have yet to be made.	Decisions about programming and funding levels of future ESER bonds and other complementary [is sources that could support the expansion of the AWSS have yet to be made.	Decisions about programming and funding levels of future ESER bonds and other complementary [Sources that could support the expansion of the AWSS have yet to be made.
Finding Response (Agree/Disagree)	Disagree, wholly	Disagree, wholly	Disagree, wholly
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department [September 15, 2019]
	Unless the City increases funding levels, it will be for everal decaded (it., after the USGS predicts one or more major eartiquakes will occur) before the southern parts of the City have a high- pressure, multi-sourced, seismically safe emergency frefighting water supply.	Unless the City increases funding levels, it will be several decades (i.e., after the USGS predicts to one rom ore major earthquakes will occur) before the southern parts of the City have a high-pressure, multi-sourced, seismically, safe emergency firefighting water supply.	Unless the City increases funding levels, it will be several decades (i.e., after the USGS predicts one or more mappe carbitudess will occur) before the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency fireflighting water supply.
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Report Title [Publication Date]	Act Now Before it is Too Late: Aggressively Expand and Enhance Our and Enhance Our Enregency Firefighting Water System (July 17, 2019)	Act Now Before it is The season by Contact Age season by Expand and Enhance Our High-Pressure Freegency Freighting Water System [July 17, 2019]	Act Now Before it is Too Late: Foo Late: Foo Sagessively, Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]

Recommendation Response Text	The Fire Department has been allocated funding proprizace from the FN3-20 Cty budget and an allocation from the State. The Department is currently working with the Office of Contract Administration to develop a multi-year term contract for hose tenders so in the case that additional funding is secured in Cluture years, the Department will be able to reduce the amount of time for procurement of the apparatus. Each hose tender cost \$1 million each, and we need to weigh purchase of additional hose tenders to other budget request and priority.	Will be implemented SFPUC and SFFD will complete this study by June 30, 2021.	30, 2021.
Recommendation Response (Implementation)	analysis	Will be implemented	Will be implemented
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department (September 15, 2019)	Chief, San Francisco Fire Department [September 15, 2019]
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	As interim measure, by no later than June 30, 2021, the City should purchase the 20 new PWSS bose tenders being requested by the 5FP. to replace and expand its currently inadequate inventory.	The SFPUC, the SFFD and the SF Department of the Environment should study adding salt-water pump stations to improve the redundancy of wars sources, expecially on the west side. Findings and recommendations from this study should be presented to the Board of Supervisors by no later than June 30, 2021.	The SFPUC, the SFFD and the SF Department of the Environment should study adding salt-water purp stations to improve the deadundarcy of water sources, especially on the west side. Findings and recommendations from this study should be presented to the Board of Supervisors by no later than June 30, 2021.
R# [for F#]	[for F6-F7]	R6 [for F8-F9]	[for FB-F9]
Finding Response Text	The Fire Department has been allocated funding propurbase five units through throat from the State. While the Department currently has five older hose tenders spread-out throughout the City, these new units are much more modern and provide the Department with a number of operational benefits, including the following: the capability of pumping and draftine water from any water source; extending the current ANA'S system infrastructure; carrying 6,000 feet of hose for deployment, a 5,000 allon per minute (GPM) on-board water pump and a 3,000 GPM portable submersible water pump; on-board monitor with a 525 foot ready, and four wheel drive. In addition, the Department has been successful in advocating and receiving Federal grant funds to assist with purchasing various PWSS equipment (valves, hose) armps, etc.), and will confine to advocate for alternative sources of funding to increase the inventory of PWSS equipment.		While It is true that the SFPUC and SFFD are While It is true that the SFPUC and SFFD are to supply a potable EWIS on the west side of the City, which he no neans would reduce the Park, which by no means would reduce the proposed system's resiliency, reliability, performance, or ability to provide abundan high pressure water for fire suppression to the Richmond District after a sealine event. San Francisco is unique in that there are 11 in-city reservoirs, with a total water capacity of approximately 43,000,000 gallon is, additionally, take Merced, also located within City (imits, has an additional approximately 1,000,000,000 gallon papers or that it she was sucress of water at two locations. The first two water sources could be supplied from four sources of water at two locations. The first two water sources could be supplied from four sources of water at two locations. The first two water sources could be supplied from four sources of water at two locations. The first two water sources could be supplied from gallon, and a 60° selsmically resilient SFPUC Hetch Hetchy with a 30,000 gallon per minute gallons, and a 60° selsmically resilient SFPUC Hetch Hetchy selegonal Water System pipeline. The proposed potable EPMS slote is analyzing the inclusion of a second 30,000 gallons per minute pump station as econd soulons in the winder when the inclusion of a second 30,000 gallons per minute pump station as econd soulons in the pump station as econd soulons and soulons and soulons and soulons are minute pump station as econd soulons and soulons gallons per minute pump station as econd soulons and soulons and soulons gallon apper minute pump station of a second soulons and soulons and soulons are soulons.
Finding Response (Agree/Disagree)	Agree with the finding	Agree with the finding	Disagree, partially
by]	Chief, San Francisco Fire Department (September 15, 2019)	Chief, San Francisco Fire Department (September 15, 2019)	Chief, San Francisco Fire Department [September 15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	The existing Portable Water Supply System (PWSS) inventory is inadequate. Investing in more PWSS) hose tenders would provide a relatively quick, cost-effective interim means to improve protection of the southern and wastem parts of the City until a high-pressure, multisourced, seismically safe emergency water supply can be developed in those areas.	Redundancy is an important feature of an emergency firefighting water system.	Current plans to extend protections to the western part of the City do not include any high-pressure water sources north of Golden Gate Park.
£	1	82	62
Report Title [Publication Date]	Act Now Before it is Too Late: Aggressively Expand and Enhance Our and Enhance Our Emergency Firefighting Water System [July 17, 2019]	Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Ernergency Firefighting Water System [July 17, 2019]	Act Now Before it is Aggressively. Expand and circles or and circl

Recommendation Response Text	June 30, 2001.	
Recommendation Response (Implementation)	Will be implemented	
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department [September 15, 2019]	
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	The SFPUC should (a) continue its efforts to complete a more detailed analysis of emergency fireflighting water needs (including above-the-median needs) by neighborhood, and not just by FAA, and (b) present a completed analysis to the Board of Supervisors by no later than June 30, 2021.	
R# [for F#]	(for F10)	
Finding Response Text	If the Response Areas (FAAs) were utilized by SFPUC and SFPO in the plannings study CS.199. This study divided the City into areas based on those defined by the SFPD for initial alammersponse and wave called fire Response. Acrass (FRAs). Probable fire demands were developed from the case Areas (FRAs). Probable fire demands were developed from the design cartificates Scawthon, PhD using a Monte Carlo analysis of fire ignitions and fire genome the developed from the design cartificated (7.8 magnitude). The fire ignitions were generated using methods similar to those used for the Community Action Plan for Seismic Safety (CAPS) study KRA. To 2010). The fire ignitions subsequently were used to develope water demands that were aggregated into the likely fire demands for each FRA. The water supplies for each FRA were developed at comel University by Professor Thomas D. O'Rourke, CiRAFFE performs internal Monte Carlo analysis to damage pipes in the system for multiple scenarios. The water supplies for each FRA were aggregated into the likely water supplies for each FRA susmed nowater from the City's municipal susmed nowater from the City's municipal susmed in water from the City's municipal water system (MWSS), which is quite conservative and lightly unifee year after a seimnic event. The reliability score for each FRA sesumic event. The reliability score for each FRA sesumic event. The reliability score for each FRA	The EFWS was built after the 1306 earthquake, and its location, primarily in the northeast portion of San Francisco, corresponds to the location of the majority of the city's population at that time. Since 2010, the SFPUC, SFFD, and bublic Works have made critical improvements to the existing EFWS system. Expanding the EFWS prior to ensuring that the existing EFWS is stealing and erisible would have contradicted best engineering practices. The SFPUC and SFFD are developing plans that would implement a secilient, choust, and redundant potable EFWS for the Westside of San Francisco. The potable EFWS for the Westside of San Francisco. The potable EFWS for the Westside of San Francisco. The potable EFWS that is being developed and analyzed would propose the best method for bringing a robust and resilient high-pressure finelighting water system to the Western neighborhoods in other SFFD finelighters at the high-pressure needed for firelighters to compat lang fires after a estimic event, and is likely to include over 14 miles of frew EFWS planelies and potentially two new pump stations likely to be supplied by four water sources. The SFPUC and EFPD stoable EFWS is being designed in a manner that allows for agility and the feixility to add new technologies and water sources, and in a manner that allows the piping network to be extended in the future to serve additional areas.
Finding Response (Agree/Disagree)	Disagree, partially	Disagree, partially
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department (September 15, 2019)	15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	The "reliability scores" being used by the SFPUC impart an overly optimistic impression of the protection provided.	The City does not have a timeline to fund and Chief, San Fromplete development of a high-pressure, multi-Department sourced, seismically safe emergency water [September supply for all parts of the City, including poor neighborhoods that historically have not been as well protected as the downtown business district and many richer neighborhoods.
2	F10	F11
Report Title [Publication Date]	Act Now Before it is Togetessively Expand And Fabressively Expand And Fabressive Emergency Firefighting Water System [July 17, 2019]	Act Now Before it is Aggressively Expand and Enhance Our High-Pressure Firefighting Water System [July 17, 2019]

Recommendation Response Text	Will be implemented The Fire Department conducts weekly hose/bose tender defit that it roates through companies throughout the City. The Fire Department will work with the SFDUC to have them in attendance and participate in these drills. SFD will also commit to working with the PUC to enhance the cope and frequency of trainings in the future for improved collaboration. SFD and SFDUC will work together to amend the MOU by June 30, 2020.	(a) SFPUC implements "best practices" for the mandenance of NWS assets in collaboration with SFPO, and consistent with the terms of the Memorandum of Understanding Regarding Operation and Mattenance of San Fancisco Poperation and Mattenance of San Fancisco Mater Supply Systems Related to Fire Suppression (MOU), SFPUC, will seek SFPD's written approval for "any modifications that could compromise" the system's function as a high pressure freifighting system (MOU), page 2). (b) The AWSS critical valves have been identified and will be exercised every year through the AWSS Critical Valves have through the AWSS Critical Valves Exercise Program.
Recommendation Response (Implementation)	Will be implemented	implemented
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department [September 15, 2019]	Chief, San Francisco Fire Department [September 15, 2019]
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	by no later than June 30, 2020, the 2015 MOU between the \$FFD should be between the \$FFD should be amended to include a detailed roadmap for annual emergency response exercises, including simulated disaster and earthquake drills involving the AWSS and the PWSS.	By no later than December 31, 2020 the SFPUC, with the advice and subject to the a pproval of the SFP. Should (a) implement "best practices" for the maintenance of AWSS assets, and (b) redefine which AWSS valves in the system are "critical," and therefore, require more attention and priority in the SFPUC's maintenance plans.
R# [for F#]		R9 [for F12]
Finding Response Text	There are no formal protocol outlining specific for a conveyer, there are multiple opportunities to train together during operation, maintenance, and construction of improvement projects for training operation, maintenance, and construction of improvement projects for the AWS5 facilities as previously described in the response to the Grand Jury questions sent in May 2019. The SFPD and SFPUC have had multiple field training opportunities during the maintenance and start-up testing of AWS5 facilities in the last Syears. For example, on December 20, 2018, SFPUC and SFPUC personnel conducted. SFP and SFPUC personnel conducted of Purn Station No. 2 [PS2], On April 5, 2018, SFPUC and SFPU performed joint-department full-scale test of AWSS distribution through system hydrants. On August 29, 2018, SFPUC, SFFD and SFPU periodicing pumping seawater into an isolated section of the AWSS distribution through system DPW personnel conducted a seawater drafting drill and confirmation test from the new suction connection at Pier 50. In addition, SFFD and asserted service systems are in good working order, and to train personnel on operations and joint-angency communications. For example, a full-scale emergency exercise was performed between SFPD and SFPU castel in hand 27 2016. SPPUC Astel in hand 27 2016.	
Finding Response (Agree/Disagree)	Disagree, partially	
Respondent Assigned by CGJ [Response Due Date]	Chief, San Francisco Fire Department (September 15, 2019)	
Finding (text may be duplicated due to spanning and multiple respondent effects)	In the 2015 MOU between the SFFD and the SFPUC, the two agencies agreed to conduct joint Department APPCTAININGs annually, but there is no formal protocol outlining specific joint AWS5 exercises or drills using hypothetical disaster scenarios, such as a major earthquake.	
FOREIT	F13	
Report Title [Publication Date]	Act Now Before It is To Late: Aggressively Expand and Enhance Our and Enhance Our Firefighting Water System [July 17, 2019]	Act Now Before it is Too Late: Regressively Expand and Enhance Our and Enhance Our Firefighting Water System [July 17, 2019]

Recommendation Response Text	Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10. Year Capital Plan, Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1.0 fe sach odd-numbered year for approval no later than May 1. The requested presentation would be dedivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges, Lodders evaliable on this timeline would be included. The City cannot discuss the project and timeline until the ESER 2020 plan passes. For this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 31,	The commitment of sources for specific uses on specific timelines for San Francisco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan timeline. The capital planining process gathers, documents, and balances planned funding for needs across the public infrastructure portfolio and across San Francisco's resilience challenges. The Capital Plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tiered: (1) address legal and/or regulatory mandates; (2) address legal and/or regulatory mandates; (2) advance planned and programmatic needs; and pressure assets and promote sustainability; (4) advance planned and programmatic needs; and 5) promote economic development. In the next 10-Year Capital Plan and those that follow, the City Will continue to analyze priority projects and programs and identify sources to advance those priorities. Committing to entirely funding a single program out of context and without regard for the trade-offs of that commitment would be out of step with the City significant and indemning process, and likely regarded cystal planning process and likely regarded capital p	Will be implemented The analysis will be performed as part of the City's 10-Year Capital Plan development process. The next full update to the Capital Plan will be submitted to the Mayor and Board not later than March 1, 2021, for approval no later than May 1, 2021.
Recommendation Response (Implementation)	will be implemented Ensural infrast infrast in formation for that P Roar C that P Roar	Requires further The canalysis special analysis special and canalysis plan. Plan analysis plan. Batch plan analysis planer framchart f	Will be implemented The c. Ctty'. The subm than than than
Respondent Assigned by CGJ [Response Due Date]	(September 15, 2019)	(September 15, 2019)	///
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	By no later than December 31, 2020, the Mayor, Grly Administrator the SPUC, the SFD, and the Office of Resilience [September 15, 2019] and and Capital Planning should printly present to the Board of Supervisors a detailed plan to ensure the City is well prepared to fight fires in all parts of San Francisco in the event of a 1906-magnitude (7.8) earthquake.	The plan discussed in Recommendation R1 [for F1-F6] should include a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, seismically safe emergency water system for those parts of the city that don't currently have one, i.e., by no later than June 30, 2034.	By no later than June 30, 2022, the Mayor and Gty Administrator the Board of Supervisors should analyze whether [September 15, 2019] to propose a separate bond for the development of a high-pressure, mult-sourced, seismically assile emergency water system for those pairs of the City that don't currently have one, with a target date of completing construction by no later than June 30, 2034.
R# [for F#]	[for F1-F6] t	R2 1 1 1 1 1 1 1 1 1	R8 [for F5, F6, tr
Finding Response Text	Decisions about programming and funding levels future ESS fluture	Decisions about programming and funding levels future ESR bruture ESR bruture ESR bruture ESR bruture ESR bruture ESR brutures that could support the expansion of the AWSS have yet to be made.	Decisions about programming and funding levels of future ESER bonds and other complementary [ff sources that could support the expansion of the AWSS have yet to be made.
Finding Response (Agree/Disagree)	Disagree, wholiy	Disagree, wholly	Disagree, wholly
Respondent Assigned by CGJ [Response Due Date]	City Administrator [September 15, 2019]	City Administrator [September 15, 2019]	City Administrator [September 15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	Unless the City increases funding levels, it will be legy Administrator several decades (List), after the USGS predicts [September 15, 20 one or more major earthquakes will occur) before the southern parts of the City have a high-pressure, multi-sourced, seismically sale emergency firefighting water supply.	Unless the City increases funding levels, it will be City Administrator several decades (ite, affer the LOSS predicts [September 15, 20 one or more major earthquakes will occur) before the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency firefighting water supply.	Unless the City increases funding levels, it will be City Administrator several decades (i.e., after the USGS predicts one or more major earthquakes will occur) before the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency frefighting water supply.
#	2	22	9
Report Title [Publication Date]	Act Now Before it is Too Late: Aggressively Expand and Enhance Our and Enhance Our Firefighting Water System (July 17, 2019)	Act Now Before It is Too Late: Too Late: Too Late: Too Late: And Enhance Our And Enhance Our Finefighting Water System [July 17, 2019]	Act Now Before it is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Frieghting Water Sirefighting (July 17, 2019)

Recommendation Response Text	Will be implemented The analysis will be performed as part of the City's DrOver Capital Plan development process. The next full update to the Capital Plan will be submitted to the Mayor and Board not later than March 1, 2021, for approval no later than May 1, 2021.
Recommendation Response (Implementation)	Will be implemented
Respondent Assigned by CGJ [Response Due Date]	[September 15, 2019]
Recommendation (text may be duplicated due to spanning and multiple respondent effects)	R8 By no later than June 30, 2022, the Mayor and City Administrator [for F5, f6, the Board of Supervisors should analyze whether [September 15, 2019] propose a separate bond for the development of a high-pressure, multi-sourced, seismically safe emegaency water system for those parts of the City that don't currently have one, with a target date of completing construction by no later than June 30, 2034.
R# [for F#]	R8 (for F. F6. If It
Finding Response Text	the EFWS was built after the 1906 earthquake, and its Ocation, primary in the northeast pontion of San Fancisco, corresponds to the location of the majority of the city's population of the majority of the city's population at that time. Since 2000, the SPECU, SFFD, and Public Works have made critical improvements to the easting EFWS system. Expanding the EFWS prior to ensuring that the easting EFWS is resilient and reliable would have contradicted best engineering practices. The SFPUC and SFFD hast engineering practices. The SFPUC and SFFD hast engineering practices. The SFPUC and SFFD for the Westide of San Francisco. The potable FWS that is being developed and analyzed would propose the best method for bringing a robbust and resilient high-pressure frelighting water system to the Western neighborhoods in San Francisco that is capable of providing water needed for frelighters at the high-pressure needed for frelighters to combat large fires after a seismic event, and is likely to include potentially two wayer or spilliers and potentially two wayers or spilliers and mamment that allows for agility and the fleebillity to add new technologies and water sources, and sin a manner that allows the piping network to be extended in the future to serve additional areas.
Finding Response (Agree/Disagree)	Disagree, partially
Respondent Assigned by CGJ [Response Due Date]	City Administrator [September 15, 2019]
Finding (text may be duplicated due to spanning and multiple respondent effects)	The City does not have a limeline to fund and complete development of a high-pressure, multi- [September 15, 2019) sourced, seidmically sale emergency water supply for all parts of the City, including poor neighborhoods that braits richally have not been as well protected as the downtown business district and many richer neighborhoods.
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Report Title [Publication Date]	Act Now Before It Is Ago Late: Ago L

Report Title F	Finding (text may be duplicated due to spanning and multiple respondent effects)	Respondent Assigned by Ing and Ing and Ing Page 1995 [Response Due Date]	Finding Response (Agree/Disagree)	Finding Response Text	R# [for F#]	Recommendation (text may be duplicated due to spanning and multiple respondent effects)	Respondent Assigned by Recommendation CGJ Response (Implementation)	Recommendation Response (Implementation)	Recommendation Response Text
Act Now Before It Is Too Late: Aggressively Expand					R6 [for F8-F9]	R6 The SFPUC, the SFFD and the SF Department of Director, San Francisco [for R8-F9] the Environment should study adding salt-water Department of the Journa Stations to innorove the redundancy of Environment	Director, San Francisco Department of the	Will not be implemented	Not applicable to the San Francisco Department of the Environment
and Enhance Our High-Pressure						water sources, especially on the west side. Findings and recommendations from this study	[September 15, 2019]	warranted or reasonable	
Emergency Firefighting Water System						should be presented to the Board of Supervisors by no later than June 30, 2021.			